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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,102	02/28/2002	Paul Glor Howard	2001-0370	2748
26652	7590	02/07/2005	EXAMINER	
AT&T CORP. P.O. BOX 4110 MIDDLETOWN, NJ 07748			BAYAT, ALI	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/086,102

**Applicant(s)**

HOWARD, PAUL GLOR

**Examiner**

Ali Bayat

**Art Unit**

2625

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/28/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/23/03</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 8 is directed to non-statutory subject matter. Because the terminology "A computer program" alone has no set definition. The following claim formats are acceptable and not subject to a 101 rejection "A computer program embodied in a computer readable medium for performing the steps of ..." and "A computer readable medium storing a program for performing the steps of ...". See MPEP 2106.

Claims 9 and 11-12 are rejected under 35 U.S.C. 101, because they depend to the rejected claim 8.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2,5-7,13-14,17-19, 22-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Karczewicz et al. (US 2003/0081850 A1).

In regard to claim 1, Karczewicz provides for converting a block of image data (Fig.1 element 318, paragraph 18 lines 3-7) into transform coefficients (Fig.1 element

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304, paragraph 18 lines 7-8); quantizing the transform coefficients such that all, some, or none of the transform coefficients become zero (Fig. 6a paragraph 57 lines 1-6); constructing a single entity indicating which transform coefficients are non-zero (Fig.1 element 370, paragraph 22 lines 1-6, note non-zero quantized coefficients ); and coding the single entity as an integer using an arithmetic coder wherein the values of the transform coefficients are coded in any fixed order ( paragraph 24 lines 16-27).

With regard to claims 2,14, 19 and 27 Karczewicz provides for a method, wherein coding the single entity as an integer further comprises coding the single entity as an integer using an adaptive arithmetic coder (paragraph 45, lines 14-16).

As to claims 5 and 6 Karczewicz provides for a method, wherein each transform coefficient is coded according to its own context, based on the transform coefficient (see paragraph 1).

In regard to claims 7,17, 22, 24 and 26 Karczewicz provides for a method, wherein the single entity is a bit vector (paragraph 22, note one-dimensional array which corresponds to a bit vector).

With regard to claims 13 and 23 see the rejected claim 1. They recite similar limitations as claim 1. Hence they are similarly analyzed and rejected.

As to claim 18. See the rejected claim 1. It recites similar limitations as claim 18. Except for a computer-readable medium (paragraph 105 lines 1-2). Hence it is similarly analyzed and rejected.

In regard to claim 25, Karczewicz provides for decoding the single entity wherein the values of transform coefficients are decoded in any fixed order (Fig.2 element 355

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paragraph 37); deconstructing the single entity to determine which coefficients are non-zero (paragraph 39 lines 10-11); dequantizing the transform coefficients to determine whether all, some or none of the coefficients are zero (Fig.2 elements 410 and 420, paragraph 39); and converting the dequantized transform coefficients into block image data ( Fig.2 element 480 paragraph 40 lines 9-12).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4,10,15-16,20-21 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karczewicz et al. (US 2003/008150 A1) in view of Morihara et al. (US 6,542,640).

In regard to claims 3-4,10,15-16,20-21 and 28-29, Karczewicz provides for coding the single entity as an integer using an adaptive arithmetic coder (paragraph 45 lines 14-16). Karczewicz does not expressly provide for semi-adaptive and non-adaptive arithmetic coder. Morihara provides for semi-adaptive and non-adaptive arithmetic coder (col.2 lines 9-20, note static coding that corresponds to non-adaptive). The prior art of Karczewicz and Morihara are combinable because they are from the same field of endeavor (data compressing and reconstructing apparatus). At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Morihara (col.2 lines 9-20) with the system and method of Karczewicz.

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Because Morihara invention relates to data compressing apparatus, reconstructing apparatus, and its method for compressing and reconstructing document data formed by character codes of a language such as Japanese (col.1 lines 10-15).

#### **Contact Information**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 703-306-5915.

The examiner can normally be reached on M-Thur 9:00-7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-3085246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Bayat *AB*  
Patent Examiner  
Group Art Unit 2625  
2/1/05

  
KANUBHAI PATEL  
PRIMARY EXAMINER